

ABSTRACT OF THE DISCLOSURE

A fluid heater having a first heat exchanger block with a fluid heating tube encased therein, and having a first surface, a second heat exchanger block with a fluid heating tube encased therein and having a second surface adjacent to the first surface. A cavity is formed in the surface of the first block, or, alternatively, formed in each of the surfaces of the first and second blocks. A heating element is positioned within the cavity and completely encapsulated by the first and second blocks. The heating element may include first and second bus plates and a plurality of PTC elements sandwiched between the bus plates in an electrically parallel configuration, each PTC element including first and second conductive plates, and a plurality of positive temperature coefficient heating stones sandwiched between the conductive plates in an electrically parallel configuration.